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              AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
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=> s (ethylene polymer# or polyethylene) (5w) oxygen 1714 (ETHYLENE POLYMER# OR POLYETHYLENE) (5W) OXYGEN L1

=> s (melt mix? or extruder) (5a) oxygen 193 (MELT MIX? OR EXTRUDER) (5A) OXYGEN

=> s 11 and 12

17 L1 AND L2

=> d 13 1-17 ibib abs

ANSWER 1 OF 17 USPATFULL on STN

ACCESSION NUMBER:

2004:51700 USPATFULL

TITLE:

INVENTOR(S):

Oxygen tailoring of polyethylene film resins Wagner, James E., Houston, TX, UNITED STATES

Johnson, Jerry M., League City, TX, UNITED STATES

Joy, Dale J., Wimberley, TX, UNITED STATES Robertson, Wesley J., Humble, TX, UNITED STATES Cowell, Timothy J., Houston, TX, UNITED STATES

NUMBER DATE KIND ------US 2004039131 A1 20040226 US 2003-612747 A1 20030702

PATENT INFORMATION: APPLICATION INFO.:

20030702 (10)

NUMBER DATE 

PRIORITY INFORMATION:

US 2002-393939P 20020703 (60)

DOCUMENT TYPE: Utility FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

EXXONMOBIL CHEMICAL COMPANY, P O BOX 2149, BAYTOWN, TX,

77522-2149

NUMBER OF CLAIMS:

51

EXEMPLARY CLAIM: NUMBER OF DRAWINGS:

2 Drawing Page(s)

LINE COUNT: 956

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Processes are disclosed for oxygen-tailoring polyethylene resin. Polyethylene resin is conveyed through a feed zone, a melt-mixing zone and a melt zone. The resin is contacted with oxygen in an amount of at least 40 parts by weight O.sub.2 per million parts by weight resin, and contacted with primary antioxidant downstream of the point or points of oxygen contact. The oxygen-treated resin can be used to make

polyethylene film having improved gauge uniformity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 2 OF 17 USPATFULL on STN

ACCESSION NUMBER:

2003:44505 USPATFULL

TITLE:

Oxygen scavenging PET based polymer

INVENTOR(S):

Schiraldi, David Anthony, Charlotte, NC, UNITED STATES

Sekelik, Douglas John, Greer, SC, UNITED STATES Smith, Brad Lee, Wilmington, NC, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003031815 US 6544611	A1 B2	20030213 20030408	
APPLICATION INFO.:	US 2001-920558	A1	20010801	(9)

DOCUMENT TYPE: FILE SEGMENT:

UCILICY APPLICATION

LEGAL REPRESENTATIVE: KoSa, 4501 Charlotte Park Drive, Charlotte, NC,

28217-1979

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

36 1

NUMBER OF DRAWINGS: LINE COUNT:

1 Drawing Page(s)

612

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention improves the effectiveness of the oxygen scavenging composition and maintains an excellent balance in the color properties of the polymer. The present invention relates to an improved oxygen scavenging PET based copolymer comprising from about 10 to about 120 ppm cobalt based on the PET polymer, and from about 15 to about 150 ppm zinc based on the PET polymer. The present invention also comprises a process for preparing a PET based oxygen scavenging copolymer, comprising the steps of:

- a) polymerizing a PET based polymer;
- b) adding Zn, Co, and an oxygen scavenging compound during said polymerizing step;
- c) copolymerizing said oxygen scavenging compound with said PET based polymer to form a copolymer; and
- d) extruding said copolymer.

The present invention also comprises an oxygen barrier container having one or more layers of a PET based oxygen scavenging copolymer having from about 10 to about 120 ppm Co based on said PET polymer, and from about 15 to about 150 ppm Zn based on the PET polymer; and an oxygen scavenging compound wherein said Co and said Zn are catalysts for said oxygen scavenging compound.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 3 OF 17 USPATFULL on STN

ACCESSION NUMBER:

2002:165297 USPATFULL

TITLE: INVENTOR(S): Oxygen-scavenging compositions and articles Chiang, Weilong L., Naperville, IL, UNITED STATES

Tsai, Boh C., Inverness, IL, UNITED STATES Chen, Stephen Y., Wheaton, IL, UNITED STATES

Venkateshwaran, Lakshmi N., Freehold, NJ, UNITED STATES

NUMBER KIND DATE PATENT INFORMATION: US 2002086929 A1 20020704 US 6586514

20030701 B2

APPLICATION INFO.:

US 2002-39736

20020104 (10)

RELATED APPLN. INFO.:

A1 Continuation of Ser. No. US 1998-44043, filed on 18 Mar

1998, PENDING Continuation-in-part of Ser. No. US

1995-483302, filed on 7 Jun 1995, PATENTED

Continuation-in-part of Ser. No. US 1994-249758, filed

on 25 May 1994, ABANDONED Division of Ser. No. US

1993-92722, filed on 16 Jul 1993, ABANDONED

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

JoAnn Villamizar, Patent Department, Ciba Specialty Chemicals Corp., 540 White Plains Road, P.O. Box 2005,

Tarrytown, NY, 10591-9005

NUMBER OF CLAIMS:

1

EXEMPLARY CLAIM: LINE COUNT:

2034

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Oxygen-scavenging compositions comprising an oxidizable metal component, an electrolyte component and a solid, non-electrolytic, acidifying component. When blended with soft, flexible polymeric resins, these compositions exhibit good oxygen-scavenging performance with improved oxidation efficiency relative to compositions containing an oxidizable metal component, an electrolyte, and an acidifying component combined with a more rigid thermoplastic resins. Selection of a thermally stable non-electrolytic, acidifying component is important when melt compounding the compositions into polymeric resins and particularly for extrusion coating applications. The compositions can be used directly as an oxygen absorbent resin melt-fabricated into a wide variety of oxygen-scavenging packaging articles or as concentrates in combination with other thermoplastic resins.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 4 OF 17 USPATFULL on STN

ACCESSION NUMBER:

2001:222884 USPATFULL

TITLE:

OXYGEN ABSORBING COMPOSITION, OXYGEN ABSORBING RESIN COMPOSITION USING THE OXYGEN ABSORBING COMPOSITION, AND

PRESERVING METHOD UTILIZING THESE COMPOSITIONS

INVENTOR (S):

SAKAMOTO, MASARU, TOKYO, Japan NAGATA, MASAKI, TOKYO, Japan

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2001048096	A1	20011206	
	US 6596191	B2	20030722	
APPLICATION INFO.:	US 1999-324649	A1	19990603	(9)

NUMBER DATE

PRIORITY INFORMATION:

JP 1998-154461

19980603

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

THOMAS W COLE ESQ, SIXBEY FRIEDMAN LEEDOM & FERGUSON, 8180 GREENSBORO DRIVE, SUITE 800, MCLEAN, VA, 22102

NUMBER OF CLAIMS:

27

EXEMPLARY CLAIM:

1

LINE COUNT:

1076

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Provided is an oxygen absorbing composition and an oxygen absorbing resin composition employing such oxygen absorbing composition, which demonstrate a favorable oxygen absorbing performance even in a low-humidity environment. Use of such oxygen absorbing composition and oxygen absorbing resin composition allows preservation of medicines or foods etc. which are in a dry state and disfavoring moisture.

The oxygen absorbing composition according to the present invention comprises iron powder/iodine, or iron powder/iodine/metallic iodine.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 5 OF 17 USPATFULL on STN

ACCESSION NUMBER:

2001:145342 USPATFULL

TITLE:

OXYGEN-SCAVENGING COMPOSITIONS AND ARTICLES

INVENTOR (S):

CHIANG, WEILONG L., NAPERVILLE, IL, United States TSAI, BOH C., INVERNESS, IL, United States

CHEN, STEPHEN Y., WHEATON, IL, United States

VENKATESHWARAN, LAKSHMI N., FREEHOLD, NJ, United States

NUMBER KIND DATE -----PATENT INFORMATION: US 2001018480 A1 20010830 US 6369148 B2 US 1998-44043 A1 20020409 APPLICATION INFO .: 19980318 (9)

RELATED APPLN. INFO.:

Continuation-in-part of Ser. No. US 1995-483302, filed

on 7 Jun 1995, GRANTED, Pat. No. US 5744056

Continuation-in-part of Ser. No. US 1994-249758, filed

on 25 May 1994, ABANDONED Division of Ser. No. US

1993-92722, filed on 16 Jul 1993, ABANDONED

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE: CIBA SPECIALTY CHEMICALS CORPORATION, PATENT DEPARTMENT, 540 WHITE PLAINS RD, P O BOX 2005,

TARRYTOWN, NY, 10591-9005

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

1

LINE COUNT: 2030

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Oxygen-scavenging compositions comprising an oxidizable metal component. an electrolyte component and a solid, non-electrolytic, acidifying component. When blended with soft, flexible polymeric resins, these compositions exhibit good oxygen-scavenging performance with improved oxidation efficiency relative to compositions containing an oxidizable metal component, an electrolyte, and an acidifying component combined with a more rigid thermoplastic resins. Selection of a thermally stable non-electrolytic, acidifying component is important when melt compounding the compositions into polymeric resins and particularly for extrusion coating applications. The compositions can be used directly as an oxygen absorbent resin melt-fabricated into a wide variety of oxygen-scavenging packaging articles or as concentrates in combination with other thermoplastic resins.

### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 6 OF 17 USPATFULL on STN

ACCESSION NUMBER:

1999:116892 USPATFULL

TITLE:

Polyoelfin films having increased gas permeability and

method for making

INVENTOR(S):

Brant, Patrick, Seabrook, TX, United States

PATENT ASSIGNEE(S):

Exxon Chemical Patents, Inc., Baytown, TX, United

States (U.S. corporation)

NUMBER KIND DATE US 5958319 PATENT INFORMATION: 19990928 19960724 (8) US 1996-686042 APPLICATION INFO.: DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER:

Nakarani, D. S.

ASSISTANT EXAMINER: Tarazano, D. Lawrence

LEGAL REPRESENTATIVE: Miller, D. W.

NUMBER OF CLAIMS: 10 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 800

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Films, made of polyethylenes, and articles made therefrom exhibit, for a given density, improved oxygen transmission. The polyethylenes are produced in a metallocene-catalyzed production process. The films may be made by a cast film process, and may be made under conditions that raise the birefringence and the oxygen transmission rate of the film, such as increasing strain rate decreasing melt temperature, increasing quench rates, or may be post-extrusion treated, for instance annealed or cold drawn. Combinations of both extrusion techniques and post-extrusion techniques may also be used. Polyethylenes utilized for making such films typically have a Composition Distribution Breadth Index above 50%, a M.sub.w /M.sub.n below 3, and a M.sub.z /M.sub.w below 2. The permeability of the films so made will be 50% or more above the permeability of films based on similar resins based on previously used film formation techniques.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 7 OF 17 USPATFULL on STN

ACCESSION NUMBER: 1998:110787 USPATFULL

TITLE: Article for scavenging oxygen from a container

INVENTOR(S): Frisk, Peter, Chicago, IL, United States
PATENT ASSIGNEE(S): Tetra Laval Holdings & Finance, S.A., Pully,

Switzerland (non-U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 5806681 19980915 APPLICATION INFO.: US 1996-729221 19961009 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kelly, C. H.
LEGAL REPRESENTATIVE: Catania, Michael A.

NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)

LINE COUNT: 563

An article composed of a polymer material integrated with an oxygen AB scavenging agent is disclosed that is suitable for oxygen sensitive contents. Once affixed to the interior of a container, the novel article is capable of scavenging excess oxygen from the enclosed atmosphere of the container without substantially modifying the design of similar container. The article is composed of a polymer material integrated with an oxygen scavenging agent between 0.1 and 1.0 grams. One aspect of the article is a thin film which only surrounds the atmosphere of the container. In most container configurations, the article would be the neck portion of the container. Another aspect of the article is a thin film affixed to the bottom of a sealing cap for the container. The polymer material may be a polyolefin such as polyethylene. The oxygen scavenging agent may be selected from iron based compounds, organic compounds and biologically active compounds. More specifically, the iron based compounds may be selected from pure iron, iron containing organic compounds, FeO.sub.X, and Fe.sub.X O.sub.Z (OH).sub.T. The organic compounds used as oxygen scavenging agents may be selected from ascorbic acid, vitamin E, vitamin B and most other vitamins. The article is in direct contact with the gaseous contents of the atmosphere of the container. The present invention also discloses a method for fabricating an oxygen scavenging container.

ANSWER 8 OF 17 USPATFULL on STN

ACCESSION NUMBER:

1998:39656 USPATFULL

TITLE:

Process for modifying a polyethylene in an extruder

INVENTOR(S):

Piana, Alain, Martigues, France

PATENT ASSIGNEE(S):

BP Chemicals Limited, London, England (non-U.S.

corporation)

NUMBER KIND DATE -----

PATENT INFORMATION:

US 5739266 19980414 US 1995-515830 19950816 (8)

APPLICATION INFO.:

NUMBER DATE -----

PRIORITY INFORMATION:

FR 1995-9410630 19950830

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

FILE SEGMENT: Granted
PRIMARY EXAMINER: Weber, Thomas R.
LEGAL REPRESENTATIVE: Brooks Haidt Haffner & Delahunty

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM:

LINE COUNT:

1 722

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to a process for modifying a polyethylene

in an extruder by bringing the polyethylene into contact with

oxygen or a gas mixture containing oxygen in the

extruder, optionally in the presence of a relatively small

quantity or preferably in the absence of short-term antioxidant agent. The polyethylene is then treated thermomechanically in the molten state in the extruder supplying a relatively high specific mechanical energy, the thermomechanical treatment is completed when the value of the loss tangent of the polyethylene characterizing its viscoelastic state decreases in a desired proportion. The polymer thus treated is particularly suitable for being transformed by blown extrusion into a film having a considerably increased bubble stability.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 9 OF 17 USPATFULL on STN

ACCESSION NUMBER:

88:40547 USPATFULL

TITLE: INVENTOR(S): Multi-layer polymeric structure Sumi, Takehiko, Kanagawa, Japan

Matsumoto, Kazuya, Kanagawa, Japan

PATENT ASSIGNEE(S):

Kyoraku Co., Ltd., Tokyo, Japan (non-U.S. corporation)

NUMBER KIND DATE US 4753845 19880628

DATE

PATENT INFORMATION: APPLICATION INFO.:

US 1987-3959

19870116 (7)

PRIORITY INFORMATION:

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 JP 1986-18854
 19860130

 JP 1986-39296
 19860226

 JP 1986-181973
 19860804

NUMBER

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER: Lesmes, George ASSISTANT EXAMINER: Zirker, D. R.

Lesmes, George F.

NUMBER OF CLAIMS:

LEGAL REPRESENTATIVE: Kananen, Ronald P.

EXEMPLARY CLAIM:

6 1 NUMBER OF DRAWINGS:

2 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A multi-layer polymeric structure useful for packages comprises at least one protective layer of hydrophobic resin and at least one layer of water-sensitive oxygen barrier resin. This multi-layer polymeric structure is characterized by incorporating in the oxygen barrier layer at least one macromolecular compound selected from the group consisting of high polymers of a three-dimensional network structure containing hydrophilic groups and water-soluble macromolecular compounds containing ionizing groups.

Optionally, the oxygen barrier layer and the protective layer may be joined through the medium of an additional layer of adhesive resin in a laminated form.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 10 OF 17 USPATFULL on STN

ACCESSION NUMBER:

81:54764 USPATFULL

TITLE:

INVENTOR(S):

Polyamides containing oxidized polyethylene Heydenreich, Frieder, Ratingen, Germany, Federal

Republic of

Korber, Helmut, Odenthal, Germany, Federal Republic of Tacke, Peter, Krefeld, Germany, Federal Republic of Fahnler, Friedrich, Krefeld, Germany, Federal Republic

 $\circ f$ 

Neuray, Dieter, Krefeld, Germany, Federal Republic of

PATENT ASSIGNEE(S):

Bayer Aktiengesellschaft, Germany, Federal Republic of

(non-U.S. corporation)

NUMBER KIND DATE \_\_\_\_\_\_\_

PATENT INFORMATION:

19811006

APPLICATION INFO.: RELATED APPLN. INFO.: US 4293662 US 1979-99844 19791203 (6)

Continuation-in-part of Ser. No. US 1978-971386, filed on 20 Dec 1978, now abandoned

NUMBER DATE

\_\_\_\_\_

DE 1978-2805892 19780213

PRIORITY INFORMATION: DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

LEGAL REPRESENTATIVE:

Lieberman, Paul Connolly and Hutz

NUMBER OF CLAIMS:

6

EXEMPLARY CLAIM:

1

LINE COUNT:

237

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

High impact resistant polymer blends comprising 70-99% by weight of a polyamide and 1-30% by weight of a polyethylene having been oxidized by a special process.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 11 OF 17 USPAT2 on STN

ACCESSION NUMBER:

2003:44505 USPAT2

TITLE:

Oxygen scavenging PET based polymer

INVENTOR(S):

Schiraldi, David Anthony, Charlotte, NC, United States

Sekelik, Douglas John, Greer, SC, United States

PATENT ASSIGNEE(S):

Smith, Brad Lee, Wilmington, NC, United States Arteva North America S.A.R.L., Zurich, SWITZERLAND

(non-U.S. corporation)

NUMBER KIND DATE \_\_\_\_\_

PATENT INFORMATION:

US 6544611 B2 20030408

APPLICATION INFO.: DOCUMENT TYPE:

US 2001-920558

20010801 (9)

FILE SEGMENT:

Utility GRANTED

PRIMARY EXAMINER:

Short, Patricia A. LEGAL REPRESENTATIVE: Clements, Gregory N.

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT:

608

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention improves the effectiveness of the oxygen scavenging composition and maintains an excellent balance in the color properties of the polymer. The present invention relates to an improved oxygen scavenging PET based copolymer comprising from about 10 to about 120 ppm cobalt based on the PET polymer, and from about 15 to about 150 ppm zinc based on the PET polymer. The present invention also comprises a process for preparing a PET based oxygen scavenging copolymer, comprising the steps of:

- a) polymerizing a PET based polymer;
- b) adding Zn, Co, and an oxygen scavenging compound during said polymerizing step;
- c) copolymerizing said oxygen scavenging compound with said PET based polymer to form a copolymer; and
- d) extruding said copolymer.

The present invention also comprises an oxygen barrier container having one or more layers of a PET based oxygen scavenging copolymer having from about 10 to about 120 ppm Co based on said PET polymer, and from about 15 to about 150 ppm Zn based on the PET polymer; and an oxygen scavenging compound wherein said Co and said Zn are catalysts for said oxygen scavenging compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 12 OF 17 USPAT2 on STN

ACCESSION NUMBER:

2002:165297 USPAT2

TITLE: INVENTOR(S): Oxygen-scavenging compositions and articles Chiang, Weilong L., Naperville, IL, United States

Tsai, Boh C., Inverness, IL, United States Chen, Stephen Y., Wheaton, IL, United States

Venkateshwaran, Lakshmi N., Freehold, NJ, United States Ciba Specialty Chemicals Corporation, Tarrytown, NY,

PATENT ASSIGNEE(S): United States (U.S. corporation)

DATE NUMBER KIND PATENT INFORMATION:

APPLICATION INFO.: RELATED APPLN. INFO.: US 6586514 B2 20030701 US 2002-39736 20020104 (10)

Continuation of Ser. No. US 1998-44043, filed on 18 Mar 1998 Continuation-in-part of Ser. No. US 1995-483302, filed on 7 Jun 1995, now patented, Pat. No. US 5744056 Continuation-in-part of Ser. No. US 1994-249758, filed on 25 May 1994, now abandoned Division of Ser. No. US 1993-92722, filed on 16 Jul 1993, now abandoned

DOCUMENT TYPE:

Utility GRANTED

FILE SEGMENT: PRIMARY EXAMINER:

Cain, Edward J.

LEGAL REPRESENTATIVE: Stevenson, Tyler A., Crichton, David R.

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

1894 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Oxygen-scavenging compositions comprising an oxidizable metal component, an electrolyte component and a solid, non-electrolytic, acidifying component. When blended with soft, flexible polymeric resins, these compositions exhibit good oxygen-scavenging performance with improved oxidation efficiency relative to compositions containing an oxidizable metal component, an electrolyte, and an acidifying component combined with a more rigid thermoplastic resins. Selection of a thermally stable non-electrolytic, acidifying component is important when melt compounding the compositions into polymeric resins and particularly for extrusion coating applications. The compositions can be used directly as an oxygen absorbent resin melt-fabricated into a wide variety of oxygen-scavenging packaging articles or as concentrates in combination with other thermoplastic resins.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 13 OF 17 USPAT2 on STN

ACCESSION NUMBER: 2001:222884 USPAT2

TITLE: Oxygen absorbing composition, oxygen absorbing resin composition using the oxygen absorbing composition, and

preserving method utilizing these compositions

Sakamoto, Masaru, Tokyo, JAPAN INVENTOR (S):

Nagata, Masaki, Tokyo, JAPAN

Mitsubishi Gas Chemical Company, Inc., Tokyo, JAPAN PATENT ASSIGNEE(S):

(non-U.S. corporation)

NUMBER KIND DATE \_\_\_\_\_ US 6596191 B2 20030722 US 1999-324649 19990603 PATENT INFORMATION: 19990603 (9) APPLICATION INFO.:

NUMBER DATE \_\_\_\_\_ PRIORITY INFORMATION: JP 1998-154461 19980603

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Mulcahy, Peter D.

LEGAL REPRESENTATIVE: Nixon Peabody LLP, Stamper, Adele M.

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 1066

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Provided is an oxygen absorbing composition and an oxygen absorbing resin composition employing such oxygen absorbing composition, which demonstrate a favorable oxygen absorbing performance even in a low-humidity environment. Use of such oxygen absorbing composition and oxygen absorbing resin composition allows preservation of medicines or foods etc. which are in a dry state and disfavoring moisture.

The oxygen absorbing composition according to the present invention comprises iron powder/iodine, or iron powder/iodine/metallic iodine.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 14 OF 17 USPAT2 on STN

ACCESSION NUMBER: 2001:145342 USPAT2

TITLE: Oxygen-scavenging compositions and articles INVENTOR(S):

Chiang, Weilong L., Naperville, IL, United States

Tsai, Boh C., Inverness, IL, United States Chen, Stephen Y., Wheaton, IL, United States

Venkateshwaran, Lakshmi N., Freehold, NJ, United States

PATENT ASSIGNEE(S):

Ciba Specialty Chemicals Corporation, Tarrytown, NY,

United States (U.S. corporation)

NUMBER	KIND	DATE			

PATENT INFORMATION:

US 6369148

B2 20020409

APPLICATION INFO.:

19980318 (9)

RELATED APPLN. INFO.:

US 1998-44043

Continuation-in-part of Ser. No. US 1995-483302, filed on 7 Jun 1995, now patented, Pat. No. US 5744056

Continuation-in-part of Ser. No. US 1994-249758, filed on 25 May 1994, now abandoned Division of Ser. No. US

1993-92722, filed on 16 Jul 1993, now abandoned

DOCUMENT TYPE:

Utility GRANTED

FILE SEGMENT: PRIMARY EXAMINER:

Hoke, Veronica P.

LEGAL REPRESENTATIVE:

Stevenson, Tyler A.

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

5

NUMBER OF DRAWINGS:

0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 1871

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Oxygen-scavenging compositions comprising an oxidizable metal component, an electrolyte component and a solid, non-electrolytic, acidifying component. When blended with soft, flexible polymeric resins, these compositions exhibit good oxygen-scavenging performance with improved oxidation efficiency relative to compositions containing an oxidizable metal component, an electrolyte, and an acidifying component combined with a more rigid thermoplastic resins. Selection of a thermally stable non-electrolytic, acidifying component is important when melt compounding the compositions into polymeric resins and particularly for extrusion coating applications. The compositions can be used directly as an oxygen absorbent resin melt-fabricated into a wide variety of oxygen-scavenging packaging articles or as concentrates in combination with other thermoplastic resins.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 15 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:454213 CAPLUS

DOCUMENT NUMBER:

139:22965

TITLE:

Oxygen tailoring of polyethylene resins during melt

extrusion

INVENTOR (S):

Schregenberger, Sandra D.; Lottes, James F.;

Shirodkar, Pradeep P.; Shannon, Porter C. Exxonmobil Chemical Patents Inc., USA

PATENT ASSIGNEE(S): SOURCE:

PCT Int. Appl., 23 pp.

CODEN: PIXXD2

= 10/495,473

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 2003047839	A1 20030612	WO 2002-US32243	20021009
W: AE, AG, AL,	AM, AT, AU, AZ,	BA, BB, BG, BR, BY, BZ,	CA, CH, CN,
CO, CR, CU,	CZ, DE, DK, DM,	DZ, EC, EE, ES, FI, GB,	GD, GE, GH,
GM, HR, HU,	ID, IL, IN, IS,	JP, KE, KG, KP, KR, KZ,	LC, LK, LR,
		MK, MN, MW, MX, MZ, NO,	
PL. PT. RO.	RU. SD. SE. SG.	SI, SK, SL, TJ, TM, TN,	TR. TT. TZ.

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UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
              TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
              CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
              PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
              NE, SN, TD, TG
     EP 1461197
                                   20040929
                                                EP 2002-776192
                            A1
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
                                                                   P 20011130
PRIORITY APPLN. INFO.:
                                                US 2001-334563P
                                                US 2002-406706P
                                                                       P 20020829
                                                                     W 20021009
                                                WO 2002-US32243
     A process for extruding a polyethylene homopolymer or copolymer having a
AB
     bimodal mol. weight distribution is conveyed through an extruder
     and contacted with oxygen. The polyethylene is processed in an extruder having a feed zone in which the resin is not melted, a mixing
     zone in which at least a portion of the resin is melted, and a melt zone
     in which the resin is in a molten state. Each extrusion zone is partially
     filled with resin in contacted with a gas mixture containing oxygen in 8 to 40
     by volume in the melt zone. The resulting oxygen-tailorer resin can be used
     to make polyethylene films having improved bubble stability and gauge
     uniformity. The resin can be further pelletized.
REFERENCE COUNT:
                           4
                                  THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
                                  RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
T.3
     ANSWER 16 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:
                           1999:511325 CAPLUS
DOCUMENT NUMBER:
                           131:131066
TITLE:
                           Method for manufacturing a DC cable
                           Carstensen, Peter
INVENTOR(S):
PATENT ASSIGNEE(S):
                           Asea Brown Boveri AB, Swed.
SOURCE:
                           PCT Int. Appl., 22 pp.
                           CODEN: PIXXD2
DOCUMENT TYPE:
                           Patent
                           English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                                   DATE
                           KIND
                                                APPLICATION NO.
                                                                          DATE
                           ----
                                                _____
                                   -----
                                   19990812 WO 1999-SE148
     WO 9940589
                           A1
                                                                         19990204
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
              DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
              KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU,
              TJ, TM
          RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
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AB An insulated elec. DC-cable is manufactured by extruding a polymer-based insulation system comprising a compounded polyethylene around a conductor and subsequently crosslinking the PE composition The PE composition is pretreated

CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

19990807

19991220

19990806

19990823

Α

C2

Α

A1

SE 9800347

SE 511942 ZA 9900836

AU 9926496

PRIORITY APPLN. INFO.:

such that the resulting crosslinked PE (XLPE) composition comprises polar groups bonded to the crosslinked structure. Mol. O is introduced into the compounded PE composition during this pretreatment in an extruder, prior to the

SE 1998-347

ZA 1999-836

AU 1999-26496

SE 1998-347

WO 1999-SE148

19980206

19990203

19990204

A 19980206

W 19990204

PE composition being extruded from the extruder head.

REFERENCE COUNT:

2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1996:287971 CAPLUS

DOCUMENT NUMBER:

124:290671

TITLE:

Treating ethylene polymer with oxygen in extruder before blow

molding of film

INVENTOR(S):

Paina, Alain

PATENT ASSIGNEE(S):

Bp Chemicals Limited, UK; Bp Chemicals S.N.C.

SOURCE:

Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW Patent

DOCUMENT TYPE: LANGUAGE:

English

1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	TENT NO.			KIND	)	DATE		API	LICATION NO.			DATE
EP	700769			A2		19960313		EΡ	1995-305665			19950814
EP	700769			<b>A</b> 3		19960320						
EP	700769			B1		20000329						
	R: BE,	DE,	ES,	FR,	GB,	, IT, NL,	SE					
FR	2723880			<b>A</b> 1		19960301		FR	1994-10630			19940830
FR	2723880			В1		19970103						
ES	2144578			Т3		20000616		ES	1995-305665			19950814
US	5739266			A		19980414		US	1995-515830			19950816
ZA	9506934			Α		19970218		ZA	1995-6934			19950818
CA	2156894			AA		19960301		CA	1995-2156894			19950824
NO	9503384			Α		19960301		NO	1995-3384			19950829
FI	9504063	_		Α		19960302		FΙ	1995-4063			19950830
JP	08090633			A2		19960409		JР	1995-222425			19950830
PRIORITY	APPLN.	INFO	. :					FR	1994-10630	1	A	19940830

AB A molten ethylene polymer or copolymer (e.g., with 1-butene) is contacted with O in an extruder to give a modified polymer which shows good bubble stability during the manufacture of blown film.

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	68.23	68.65
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-2.10	-2.10

STN INTERNATIONAL LOGOFF AT 02:12:29 ON 01 OCT 2004